

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/064220 A1

(51) International Patent Classification⁷: **F16L 37/088**

(21) International Application Number:
PCT/US2003/038925

(22) International Filing Date: 9 December 2003 (09.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **COOPER TECHNOLOGY SERVICES, LLC**. [US/US]; 701 Lima Avenue, Findlay, OH 45840 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LUTZKE, Matthew David** [US/US]; 1212 Rose Center Road, Fenton, MI 48430 (US). **GRAICHEN, Brian** [US/US]; 8429 Pershing Street, Centerline, MI 48015 (US).

(74) Agent: **OLDS, Theodore W.**; Carlson, Gaskey & Olds, P.C., 400 West Maple Road, Suite 350, Birmingham, MI 48009 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

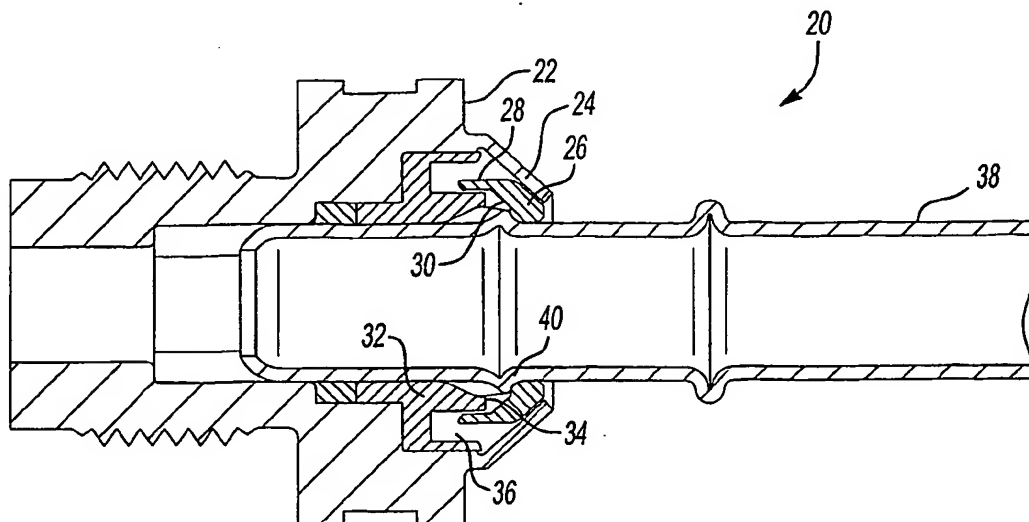
(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: QUICK CONNECT COLLET RETAINER WITH SELF-CENTERING STRUCTURE



(57) Abstract: A collet quick connect fluid coupling includes a self-centering structure that is received within a channel (36) in a pilot (32). The channel and self-centering leg (28) ensures the collet (26) is approximately centered within the housing (22) as a tube (38) is moved into the housing. This prevents misalignment of the collet relative to the tube (38). In a preferred embodiment, the collet (26) has a ramp (30) on an inwardly facing surface that cams along a surface on the pilot (32), assisting the collet (26) in expanding when a tube (38) is moved into a housing (22).

WO 2005/064220 A1